

## ADEQ "STRAWMAN" YUMA AG BMPS RULE

### **R18-2-609. Agricultural Practices**

A person shall not cause, suffer, allow, or permit the performance of agricultural practices outside the Phoenix and Yuma planning ~~area~~ areas, as defined in 40 CFR 81.303, which are incorporated by reference in R18-2-210, including tilling of land and application of fertilizers without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

### **R18-2-610. Definitions for R18-2-611**

*No change This rule can be found at [http://www.azsos.gov/public\\_services/Title\\_18/18-02.htm](http://www.azsos.gov/public_services/Title_18/18-02.htm)*

### **R18-2-611. Agricultural PM10 General Permit; Maricopa PM10 Nonattainment Area**

*No change This rule can be found at [http://www.azsos.gov/public\\_services/Title\\_18/18-02.htm](http://www.azsos.gov/public_services/Title_18/18-02.htm)*

### **R18-2-612. Definitions for R18-2-613**

1. "Access restriction" means restricting or eliminating public access to noncropland with signs or physical obstruction.
2. "Aggregate cover" means gravel, concrete, recycled road base, caliche, or other similar material applied to noncropland.
3. "Artificial wind barrier" means a physical barrier to the wind.
4. "Bed row spacing" means increasing or decreasing the size of the planting bed area thereby reducing the number of passes and soil disturbance by increasing plant density/canopy through reduction of row width or converting to overhead vineyard production systems to contain PM within the canopy.
5. "Best management practice" means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM10 emissions from a regulated agricultural activity.
6. "Chemical irrigation" means applying a fertilizer, pesticide, or other agricultural chemical to cropland through an irrigation system.
7. "Combining tractor operations" means performing two or more tillage, cultivation, planting, or harvesting operations with a single tractor or harvester pass.
8. "Commercial farm" means 10 or more contiguous acres of land used for agricultural purposes within the boundary of the Yuma PM10 nonattainment area.

9. "Commercial farmer" means an individual, entity, or joint operation in general control of a commercial farm.
10. "Conservation irrigation" means to conserve the quantity of water use through, for example, drips, sprinklers or underground lines, thereby reducing the weed population, the need for tillage, and soil compaction.
11. "Conservation tillage" means types of tillage that reduce loss of soil and water in comparison to conventional tillage.
12. "Cover crop" means plants or a green manure crop grown for seasonal soil protection or soil improvement.
13. "Critical area planting" means using trees, shrubs, vines, grasses, or other vegetative cover on noncropland.
14. "Cropland" means land on a commercial farm that:
  - a. Is within the time-frame of final harvest to plant emergence;
  - b. Has been tilled in a prior year and is suitable for crop production, but is currently fallow; or
  - c. Is a turn-row.
15. "Cross-wind ridges" means soil ridges formed by a tillage operation.
16. "Cross-wind strip-cropping" means planting strips of alternating crops within the same field.
17. "Cross-wind vegetative strips" means herbaceous cover established in one or more strips within the same field.
18. "Equipment modification" means modifying agricultural equipment to prevent or reduce particulate matter generation from cropland.
19. "GPS tractor or implement management" means use of technology involving Global Positioning System satellites to guide tractors and implements during field operations, land leveling, or night time operation.
20. "Limited activity during a high-wind event" means performing no tillage or soil preparation activity when the measured wind speed at 6 feet in height is more than 25 mph at the commercial farm site.
21. "Manure application" means applying animal waste or biosolids to a soil surface.
23. "Mulching" means applying plant residue or other material that is not produced onsite to a soil surface.
24. "Multi-year crop" means a crop, pasture, or orchard that is grown, or will be grown, on a continuous basis for more than one year.

25. "Night farming" means operating at night when moisture levels are higher and winds are lighter.
26. "Noncropland" means any commercial farm land that:
- a. Is no longer used for agricultural production;
  - b. Is no longer suitable for production of crops;
  - c. Is subject to a restrictive easement or contract that prohibits use for the production of crops; or
  - d. Includes a private farm road, ditch, ditch bank, equipment yard, storage yard, or well head.
27. "Permanent cover" means a perennial vegetative cover on cropland.
28. "Planting based on soil moisture" means applying water to soil before performing planting operations.
29. "Reduce vehicle speed" means operating farm vehicles or farm equipment on unpaved farm roads at speeds not to exceed 20 mph.
30. "Reduced harvest activity" means reducing the number of harvest passes using a mechanized method to cut and remove crops from a field.
31. "Reduced tillage system" means reducing the number of tillage operations used to produce a crop.
32. "Regulated agricultural activity" means a commercial farming practice that may produce PM10 within the Yuma PM10 nonattainment area.
32. "Residue management" means managing the amount and distribution of crop and other plant residues on a soil surface.
34. "Sequential cropping" means growing crops in a sequence that minimizes the amount of time bare soil is exposed on a field.
35. "Surface roughening" means manipulating a soil surface to produce or maintain clods.
36. "Synthetic particulate suppressant" means a manufactured product such as lignosulfate, calcium chloride, magnesium chloride, an emulsion of a petroleum product, an enzyme product, and polyacrylamide that is used to control particulate matter.
37. "Tillage and harvest" means any mechanical practice that physically disturbs cropland or crops on a commercial farm.
38. "Tillage based on soil moisture" means applying water to soil before or during tillage, or delaying tillage to coincide with precipitation.
39. "Timing of a tillage operation" means performing tillage operations at a time that will minimize the soil's susceptibility to generate PM10.

40. “Transgenic crops” means the use of genetically modified crops such as “herbicide ready” crops, which reduces the need for tillage or cultivation operations, and reduces soil disturbance.
41. “Track-out control system” means a device to remove mud or soil from a vehicle before the vehicle enters a paved public road.
42. “Tree, shrub, or windbreak planting” means providing a woody vegetative barrier to the wind.
43. “Watering” means applying water to noncropland.
44. “Yuma PM10 nonattainment area” means the Yuma PM10 planning area as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210.

**R18-2-613. Yuma PM10 Nonattainment Area; Agricultural Best Management Practices**

- A.** A commercial farmer shall comply with this Section by August 1, 2005.
- B.** A commercial farmer, who begins a regulated agricultural activity after August 1, 2005, shall comply with this Section within 60 days after beginning the regulated agricultural activity.
- C.** A commercial farmer shall implement at least one of the best management practices from each of the following categories at each commercial farm:
1. Tillage and harvest, subsection (D);
  2. Noncropland, subsection (E); and
  3. Cropland, subsection (F).
- A commercial farmer may implement more than one best management practice for one or more of the categories.
- D.** A commercial farmer shall ensure that the implementation of each selected best management practice does not violate any other local, state, or federal law.
- E.** A commercial farmer shall implement at least one of the following best management practices to reduce PM10 emissions from tillage and harvest:
1. Bed row spacing,
  2. Chemical irrigation,
  3. Combining tractor operations,
  4. Conservation irrigation,
  5. Conservation tillage,
  6. Equipment modification,

7. GPS tractor or implement management,
8. Limited activity during a high-wind event,
9. Multi-year crop,
10. Night farming,
11. Planting based on soil moisture,
12. Reduced harvest activity,
13. Reduced tillage system,
14. Tillage based on soil moisture,
15. Timing of a tillage operation, or
16. Transgenic crops.

**F.** A commercial farmer shall implement at least one of the following best management practices to reduce PM10 emissions from noncropland:

1. Access restriction;
2. Aggregate cover;
3. Artificial wind barrier;
4. Critical area planting;
5. Manure application;
6. Reduce vehicle speed;
7. Synthetic particulate suppressant;
8. Track-out control system;
9. Tree, shrub, or windbreak planting; or
10. Watering.

**G..** A commercial farmer shall implement at least one of the following best management practices to reduce PM10 emissions from cropland:

1. Artificial wind barrier;
2. Cover crop;
3. Cross-wind ridges;
4. Cross-wind strip-cropping;
5. Cross-wind vegetative strips;
6. GPS tractor or implement management
7. Manure application;
8. Mulching;
9. Multi-year crop;
10. Permanent cover;

11. Planting based on soil moisture;
12. Residue management;
13. Sequential cropping;
14. Surface roughening; or
15. Tree, shrub, or windbreak planting.

**H.** A person may develop different practices not contained in subsections (D), (E), or (F) that reduce PM<sub>10</sub>. A person may submit practices that are proven effective through on-farm demonstration trials to the Director. The Director may review the submitted practices.

**I.** A commercial farmer shall maintain records demonstrating compliance with this Section. The records shall be provided to the Director within two business days of notice to the commercial farmer. The records shall contain:

1. The name of the commercial farmer,
2. The mailing address or physical location of the commercial farm, and
3. The best management practices selected for tillage and harvest, noncropland, and cropland at each commercial farm, and the date each best management practice was implemented.